

1. A configuration system comprising:
- a user interface, wherein said user interface receives input data for a desired configuration; and
- 5 a frame engine, receiving data input from said user interface, wherein said frame engine outputs configuration data to said user interface in response to a frame-based inference of the input data.
2. The system of claim 1, further comprising a database, coupled to said frame engine, storing configuration data selectively retrieved for output in response to inferences made by said frame engine.
- 10 3. The system of claim 2, wherein said frame engine subjects configuration data to be output to said user interface to pertinent rules-based inferences before being output to said user interface.
4. The system of claim 3, further comprising a rules engine, coupled to said frame engine, wherein said rules engine subjects selected configuration data to be output
- 15 to said user interface to pertinent rules-based inferences before being output to said user interface.
5. The system of claim 2, wherein said frame engine represents data concerning configuration in a hierarchical structure, with frames corresponding to configuration

categories, wherein the frames act as nodes of the hierarchical structure containing a collection of slots corresponding to configuration features and options.

6. The system of claim 5, wherein said database stores data representative of product knowledge pertaining to products that may be configured by the system.

5 7. The system of claim 2, wherein said database stores a plurality of questions for selective output to said user interface based on frame-based inferences made by said frame engine in response to answers input through said user interface.

8. The system of claim 7, further comprising:

10 a data analysis subsystem performing analysis of configuration data to be output to said user interface; and

a graphics formatting output subsystem providing graphical representations of configuration data output to said user interface.

9. The system of claim 8, wherein said data analysis subsystem comprises a pricing engine providing pricing data corresponding to configuration data output to said user interface.

10. The system of claim 8, wherein said graphics formatting output subsystem comprises a parametric drawing engine providing illustrations of configuration data to said user interface.

11. A method of configuring a project, the method comprising the steps of:

accessing a user interface;

initiating a project for configuration;

configuring the project by entering project selections;

5 performing a frame-based inference in response to project selections made in said
configuring step; and

outputting project configuration data to the user interface based on inferences made
in said performing step.

12. The method of claim 11, wherein said configuring step involves answering a plurality
10 of questions presented, wherein the questions to be presented during said
configuring step are stored in a database and selected for presentation based on
inferences made in said performing step.

13. The method of claim 12, wherein said configuring step further comprises the substep
of presenting preferred answers to select questions presented on the user interface.

15 14. The method of claim 12, wherein said performing step further comprises the substep
of performing a rules-based inference in response to project selections made in said
configuring step.

15. The method of claim 11, wherein said configuring step further comprises the substeps
of:

graphically selecting parameters to configure the project based upon graphic representations of variations of characteristics of components to be selected for the project; and

manipulating schematically configured illustrations of components to be selected for the project.

16. The method of claim 15, wherein the project to be configured includes a custom product, the method further comprising the steps of:

accessing a catalog page to display graphical and textual information pertinent to the product to be configured;

accessing a custom shapes editor to size a product upon configuration and to select a customized combination of dimensional parameters for said product;

accessing an accessories module containing product accessory information; and

producing technical specifications containing technical information regarding the project as configured;

17. An article of manufacture comprising a machine-readable storage medium having stored therein indicia of a plurality of machine-executable control program steps, the control program comprising the steps of:

accessing a user interface;

initiating a project for configuration;

configuring the project by entering project selections;

performing a frame-based inference in response to project selections made in said configuring step; and

outputting project configuration data to the user interface based on inferences made in said performing step.

- 5 18. The article of manufacture as recited in claim 17, wherein said performing step comprises the substep of representing data concerning configuration of the project in a hierarchical structure, with frames corresponding to configuration categories, wherein the frames act as nodes of the hierarchical structure containing a collection of slots corresponding to configuration features and options.
- 10 19. The article of manufacture as recited in claim 18, wherein said performing step comprises the substep of subjecting selected configuration data of the project to pertinent rules-based inferences.
- 15 20. In an Internet portal for use by manufacturers, distributors, dealers, retailers, and retail customers as participants in a vertical market, a method of distributing news, product information, advertising, discussion forums, and e-commerce transactions, wherein participants gain access to a configuration system that allows users to configure products and services as projects such that projects so configured are automatically transmitted to selected participants for bid, quote, sales, and ordering of the configured projects.